

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

CLEANUP AND ABATEMENT ORDER NO. R5-2006-XXXX

FOR

NICOLETTI OIL, INC.
AND
EXXONMOBIL CORPORATION
NICOLETTI OIL FACILITY
MERCED COUNTY

This Order is issued to Nicoletti Oil, Inc. and ExxonMobil Corporation (hereafter jointly referred to as the Discharger) for the subject facility based on provisions of California Water Code (Water Code) Section 13304, which authorizes the Regional Water Quality Control Board, Central Valley Region (Water Board) to issue a Cleanup and Abatement Order.

The Water Board finds that, with respect to the Discharger's acts or failure to act, the following:

BACKGROUND

1. Mobil Oil Corporation owned a bulk and retail fuel distribution facility located at 2801 Blossom Street, Dos Palos, CA (the Site, shown on Attachment A, which is made part of this Order), from 1946 until 1980 (in 1999, Mobil Oil Corporation became part of ExxonMobil Corporation [ExxonMobil] as a result of a merger). Nicoletti Oil, Inc. (Nicoletti) operated the facility as an ExxonMobil consignee from about 1950 to 1980. In 1980, Nicoletti purchased the facility and continued operation of the Nicoletti Oil Facility.
2. Petroleum products, primarily gasoline and diesel fuel, were stored and dispensed at the facility. The facility had both underground storage tanks (USTs) and above ground storage tanks (ASTs) and still maintains AST storage of gasoline and diesel fuel.
4. In July 1988, petroleum hydrocarbons were discovered in soil and groundwater following the removal of two 5,000-gallon aviation fuel USTs and one 350-gallon waste oil UST.
5. In 1992, the Discharger installed four soil borings and three groundwater monitoring wells at the facility. Petroleum hydrocarbons in both soil and groundwater, resulting from operations at the facility were discovered as a result of those, and subsequent investigations.
6. Investigation reports prepared by the Discharger document the extent of petroleum hydrocarbons - gasoline and diesel fuel - in soil, groundwater, and soil vapor associated with the Site. Gasoline and diesel fuel have been found in dissolved phase and floating upon the groundwater at the Site (floating, "pure phase" petroleum hydrocarbons is also known as "separate phase hydrocarbons"

or “SPH”). SPH underlies the facility and road immediately north of the facility. Chemical analyses of the SPH show that the SPH is a mixture of gasoline and diesel fuel containing tetraethyl lead (TEL) and MTBE.

7. The dissolved phase petroleum hydrocarbons extend to beneath the residential properties located across the street from the Site. Shallow groundwater, which has been encountered at less than 4 feet below ground surface, and soil contain petroleum hydrocarbons where persons may contact them through several exposure pathways, including direct contact in the event of excavation to groundwater, and by breathing contaminated vapors if they were to collect in an excavation or in confined spaces above ground. Dischargers have issued a precautionary advisory to discourage resident activity that could result in such exposures, and the Human Health Risk Assessment for the site found little or no risk of exposure by these pathways:-

8. A map depicting site features, including the Site, residences, and extent of petroleum hydrocarbons in groundwater is attached hereto as Attachment B, made a part of this Order.

[The Historical Extent map in Attachment B provides no time frame or concentration criteria as a frame of reference for the depicted Site conditions, and is therefore misleading. In particular, the contaminant contour for TPHd appears to include wells in which only background TPHd concentrations have been measured. Extent lines should be based on available data indicating contamination from the Site source. A 360 degree dashed line (unknown) for TPHd, is not a meaningful contour].

9. Recently measured dissolved concentrations of petroleum hydrocarbons in groundwater are summarized below:

Constituent	Concentration, µg/L ¹
TPHd-d	3,100,000 (MW-14, 03/06)
TPHg	1,273,000 (MW-05, 03/06)
Benzene	9,800 (MW-12, 03/06)
Toluene	2,100 (MW-8, 03/06)
Ethylbenzene	1,400 (MW-13, 03/06)
Xylenes	2,650 (MW-14, 03/06)
Naphthalene	1,200 (MW-14, 03/06)
MTBE	2,700 (MW-Z, 03/06)
TEL	140² (MW-14 & MW-12, 04/05)

¹
µg/L = micrograms per liter

²
~~TEL concentration as measured in SPH samples expressed as micrograms per gram (equivalent to parts per million by weight)~~

[The cited TPHd and TPHg numbers were actually sampled in SPH wells, connected to the remedial system, and are not representative of dissolved-phase concentrations in groundwater. An amended

Quarterly Report is being prepared to correct and clarify the record on this point. Concentrations from quarterly sampling during the first half of 2005, before the disruptions of construction and/or operation of the remediation system began, provide a more accurate picture of dissolved phase concentrations at the site, and for consistency should be used for all cited constituents].

[In addition, we note that -TEL has not been detected in groundwater (only in SPH), and should not be included in this chart -- even with a footnote.]

[Finally, the chart appears to cite “recently measured” numbers that are actually maximum concentrations detected, which are not necessarily representative generally. If you are going to use maximum concentrations, this should at least be made explicit in the heading or notes to the chart.]

10. In December 2004 and May 2005, the Discharger collected soil gas samples from 1 foot, 2 feet, and 3 feet below ground surface (bgs) at eight locations near the residences north of the facility. The results of the sampling at 3 feet, for two of the samples are tabulated below.

Constituent	Sample Location / Depth	Maximum Soil Gas Concentration ($\mu\text{g}/\text{m}^3$)	CHHSL ¹ ($\mu\text{g}/\text{m}^3$)
Benzene	NW-1 at 3 ft. bgs	20.15 ²	36.2
TEL	NW-1 at 3 ft. bgs	0.24	0.206

¹ California Human Health Screening Level (CHHSL) for shallow soil gas intrusion into indoor air under residential land use scenario as established by the Office of Environmental Health Hazard Assessment (OEHHA). The CHHSL is not a promulgated standard, but is a theoretically calculated screening tool.

² Benzene reported in parts per billion by volume (ppbv) converted to micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) where 1 ppbv benzene = 3.25 $\mu\text{g}/\text{m}^3$ benzene. The benzene number is below the CHHSL value.

The concentrations for these constituents in this same location, at 1 foot and 2 foot depths, were not detected or were below screening levels. Given these results, and the fact that numerous subsequent rounds of vapor sampling did not detect TEL or benzene concentrations that could affect indoor air quality, the data would appear to indicate an incomplete vapor migration pathway from groundwater to the surface.

11. In February and May 2005, air samples were collected inside of residences and from underlying crawlspaces along the north side of Blossom Street. The samples that contained petroleum hydrocarbon constituents in vapors in excess of the CHHSL theoretical health screening values~~levels~~ are tabulated below.

[The following chart is not representative of the data set for the event it purports to report. If it is to be included it should be made clear that the data was inconclusive, failed to establish a complete vapor diffusion pathway, and has never been reproduced in subsequent sampling rounds]

Constituent	Sample Location / Type	Concentration ($\mu\text{g}/\text{m}^3$)	CHHSL ¹ ($\mu\text{g}/\text{m}^3$)
Benzene	2802 Blossom / Indoor Air	0.975 ²	0.084
Benzene	1411 Erskine / Crawlspace	0.65 ²	0.084
Benzene	2774 Blossom / Crawlspace	0.325 ²	0.084
Benzene	2805 Marguerite / Crawlspace	0.65 ²	0.084
Benzene	2810 Blossom / Crawlspace	0.325 ²	0.084
Benzene	2818 Blossom / Crawlspace	0.325 ²	0.084
Benzene	2833 Marguerite / Crawlspace	0.65 ²	0.084
Benzene	2834 Blossom / Crawlspace	0.325 ²	0.084
Benzene	2802 Blossom / Crawlspace	0.975 ²	0.084
TEL	2774 Blossom / Indoor Air	1.85	0.000365 *
TEL	2810 Blossom / Crawlspace	0.8	0.000365*

¹ California Human Health Screening Level (CHHSL) for indoor air under residential land use scenario as established by the Office of Environmental Health Hazard Assessment (OEHHA). The CHHSL is not a promulgated standard, but is a theoretically calculated screening tool, and in many cases is actually below the laboratory detection limits of the analytes for which it is cited.

² Benzene reported in parts per billion by volume (ppbv) converted to micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) where 1 ppbv benzene = $3.25 \mu\text{g}/\text{m}^3$ benzene.

*The only enforceable human health exposure limit for TEL is a Federal OSHA permissible exposure limit for exposure in the occupational setting, which is 75.0 $\mu\text{g}/\text{m}^3$. This permissible limit is 40 times greater than the highest detected concentration at the site, and over 205,000 times greater than the cited CHHSL value for TEL.

None of the listed concentrations exceed any enforceable health standards. The reported concentrations of benzene in residences and crawl spaces are near or below practical limits of quantitation. They are also within the range reported for outdoor ambient and indoor background concentrations of benzene characteristic of populated areas of the state (CARB, 2005).

Samples taken at or near the homes during the same event as those listed above, did not indicate a subsurface source for TEL, and two subsequent rounds of sampling events at 2774 and 2810 Blossom detected no TEL in the indoor air or crawl space. Nonetheless, given the presence of shallow subsurface contamination at or near residences, the RWQCB remains vigilant to the potential for human exposure to TEL and other volatile constituents.

12. Although multiple sampling events failed to confirm the presence of VOCs from subsurface sources in residences, the Discharger proactively equipped these residences with air filtration units as a precautionary measure. In April 2005, also as a precautionary measure, the Discharger

issued a community notice to residents overlying or adjacent to the plume to advise against consuming or distributing produce grown on their property and to avoid contact with groundwater or soil in contact with groundwater. ~~In July and August 2005, the Discharger equipped these residences with air filtration units to remove volatile organic constituents (VOCs) from indoor air.~~ From September to November 2005, the Discharger operated a high-vacuum mobile soil vapor extraction system to remove petroleum hydrocarbon vapors from the subsurface prior to design and construction of a permanent remediation system.

13. On 3 February 2005, the Water Board issued Cleanup and Abatement Order (CAO) No. R5-2005-0701 directing the Discharger to perform certain actions including:

- 1.) Develop and implement an interim remedial action plan to abate subsurface vapor migration
- 2.) Submit an additional site assessment report to delineate the extent of petroleum hydrocarbons in groundwater as a means of evaluating the extent of the area at risk to soil vapor migration
- 3.) Submit a corrective action plan (CAP) including a human health risk assessment.

14. The Discharger submitted the required reports including a 9 August 2005 Remedial Action Plan (RAP) for the Site and in response to Water Board staff comments, a 30 September 2005 supplement to the RAP (hereafter collectively referred to as the RAP). The RAP was subsequently approved for the purpose of initiating a California Environmental Quality Act (CEQA) review of the project prior to final Water Board approval.

15. Water Board staff prepared a CEQA Initial Study and based on the findings of the Initial Study, prepared a Mitigated Negative Declaration (MND) to address potential environmental impacts from operation of the proposed remediation system. The MND describes the remediation project and specifies the following mitigation measures for potentially significant impacts:

- a) Monitoring of the treatment system emissions will be performed and if emission criteria required by the Air Pollution Control District (APCD) are not met, the system will be shut down and modified as necessary to meet the criteria,
- b) Monitoring of the groundwater treatment plant effluent quality and flow will be performed to assure that the treated water will not adversely affect the operations of the Dos Palos municipal sewer system and if effluent criteria are not met, the system will be shut down and modified as necessary to meet the criteria,
- c) Noise levels of the treatment systems, if unacceptable, will result in modifications to the system to reduce noise levels to acceptable levels.

16. A CEQA Notice of Completion, including the Initial Study and MND, was submitted to the State Clearinghouse on 25 October 2005 for review and comment by interested parties. Comments were received from the APCD and the Department of Transportation (CalTrans). APCD comments and concerns were addressed in a subsequently issued permit for the proposed project. CalTrans commented that additional studies might be required if an encroachment permit from CalTrans becomes necessary.

17. Comments on the MND were also received from a law firm representing the owners of seven of the residences located near the facility. The comments noted the need for monitoring of the proposed mitigation measures (effluent air and water quality), concerns as to potential contaminant exposures and noise during construction of the project, and whether the system will effectively remediate the contamination such that the health of the nearby residents is protected. Comments relating to the construction of the project were addressed by incorporating emission control measures into the project construction plans. Remaining comments are addressed through required monitoring programs and other actions required by this Cleanup and Abatement Order.

18. On __ June 2006, the Water Board, by resolution adopted in conjunction with this Order, approved the RAP and the issuance of a Notice of Determination for the MND.

19. The APCD issued an Authority to Construct permit for the remediation system specifying emission limits and monitoring and reporting criteria. The Discharger completed construction of the proposed remediation system and initiated operation on 22 December 2005. The remediation system provides for concurrent soil vapor extraction (SVE) and groundwater/floating product removal from 19 wells, including one well (MW-16) in addition to those specified in the RAP. The remediation system design includes:

- a) Soil vapor treatment by thermal oxidation to destroy the petroleum hydrocarbons prior to discharge to the atmosphere,
- b) Floating product separation from groundwater for off-Site disposal at a permitted facility,
- c) Further groundwater treatment by air stripping (with thermal destruction of the air stripper off-gas) and granular activated carbon (GAC),
- d) Discharge of the treated groundwater to the City of Dos Palos sewer collection system.

20. Since 22 December 2005, the Discharger has operated the SVE system at the Site. The SVE system is connected to nineteen extraction wells to remove and treat soil vapor.

21. Since 22 December 2005, the Discharger has operated a groundwater pump and treat (GWP&T) system at the Site. The GWP&T system is being operated using a portion of the nineteen available extraction wells due to the high rate of waste constituent loading in the GAC vessels.

AUTHORITY – LEGAL REQUIREMENTS

22. Section 13304(a) of the Water Code provides that:

“Any person who has discharged or discharges waste into the waters of this state in violation of any waste discharge requirements or other order or prohibition issued by a regional board or the state board, or who has caused or permitted, causes or permits, or threatens to cause or permit any waste to be discharged or deposited where it is, or probably will be, discharged into the waters of the state and creates, or threatens to create, a condition of pollution or nuisance, shall upon order of the regional board cleanup the waste or abate the effects of the waste, or, in the case of threatened pollution or nuisance, take other necessary remedial action, including, but not limited to, overseeing cleanup and abatement efforts. Upon failure of any person to comply with the cleanup and abatement order, the Attorney General, at the request of the regional board, shall petition the superior court for that county for the issuance of an injunction requiring the person to comply with the order. In the suit, the court shall have jurisdiction to grant a prohibitory or mandatory injunction, either preliminary or permanent, as the facts may warrant.”

23. Section 13305(f) of the California Water Code provides that:

“Replacement water provided pursuant to subdivision (a) shall meet all applicable federal, state and local drinking water standards and shall have comparable quality to that pumped by the public water system or private well owner prior to the discharge”

24. Section 13267(b)(1) of the CWC states that:

“In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

25. Section 13304(c)(1) of the California Water Code provides that:

“. . . the person or persons who discharged the waste, discharges the waste, or threatened to cause or permit the discharge of the waste within the meaning of subdivision (a), are liable to that government agency to the extent of the reasonable costs actually incurred

in cleaning up the waste, abating the effects of the waste, supervising cleanup or abatement activities, or taking other remedial actions. . .”

26. The State Water Resources Control Board (hereafter State Board) has adopted Resolution No. 92-49, the *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*. This Policy sets forth the policies and procedures to be used during an investigation or cleanup of a polluted site and requires that cleanup levels be consistent with State Board Resolution 68-16, the *Statement of Policy With Respect to Maintaining High Quality of Waters in California*. Resolution 92-49 and the Basin Plan establish the cleanup levels to be achieved. Resolution 92-49 requires the waste to be cleaned up to background, or if that is not reasonable, to an alternative level that is the most stringent level that is economically and technologically feasible in accordance with Title 23, California Code of Regulations (CCR) Section 2550.4. Any alternative cleanup level to background must (1) be consistent with the maximum benefit to the people of the state; (2) not unreasonably affect present and anticipated beneficial use of such water; and (3) not result in water quality less than that prescribed in the Basin Plan and applicable Water Quality Control Plans and Policies of the State Board.

27. Chapter IV of the Basin Plan contains the *Policy for Investigation and Cleanup of Contaminated Sites*, which describes the Water Board’s policy for managing contaminated sites. This policy is based on California Water Code Sections 13000 and 13304, the Title 27, Division 2, Subdivision 1 regulations, and State Board Resolution Nos. 68-16 and 92-49. The policy addresses site investigation, source removal or containment, information required to be submitted for consideration in establishing cleanup levels, and the bases for establishment of soil and groundwater cleanup levels.

28. The Water Board’s *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition - 1998* (hereafter Basin Plan), designates beneficial uses of the waters of the State and establishes water quality objectives (WQOs), and establishes implementation policies to implement WQOs. It also contains implementation plans and policies for protecting waters of the basin and implementing the WQOs. The Site overlies groundwater within the San Joaquin Hydrologic Basin, San Joaquin River Hydrologic Unit, Hydrologic Area 540.30 (Redinger). Although groundwater at or near the site is not currently used by residents or the City of Dos Palos for drinking water or for other municipal or industrial uses, the beneficial uses of the groundwater beneath the site, per the Basin Plan, are domestic, municipal, industrial, and agricultural supply.

29. ~~The constituents detected at the Site are not naturally occurring, and benzene and TEL are known human carcinogens. Pollution of groundwater with benzene (a known human carcinogen), and other petroleum constituents detected in groundwater these constituents~~ impairs or and threatens to impair the beneficial uses or potential beneficial uses of the groundwater.

[TEL has not been detected in groundwater (only in SPH). Also, TEL is not a recognized carcinogen according to EPA, NTP, IARC or ACGIH].

30. WQOs listed in the Basin Plan include numeric WQOs, e.g., state drinking water maximum

contaminant levels (MCL) that are incorporated by reference, and narrative WQOs, including the narrative toxicity objective and the narrative tastes and odors objective for surface and groundwater. Chapter IV of the Basin Plan contains the *Policy for Application of Water Quality Objectives*, which provides that “[w]here compliance with narrative objectives is required (i.e., where the objectives are applicable to protect specified beneficial uses), the Water Board will, on a case-by-case basis, adopt numerical limitations in orders which will implement the narrative objectives.” The numerical limits for the constituents of concern listed in the following table implement the Basin Plan WQOs.

Constituent	Limit	WQO	Reference
TPHd	100 µg/L	Narrative Objective for Toxicity	1980 U.S. EPA Suggested-No-Adverse-Response Level
TPHg	5 µg/L	Narrative Objective for Toxicity	California SWRCB, <i>Water Quality Criteria</i> , McKee & Wolf, 1963 & 1978
Benzene	1 µg/L	California Primary Maximum Contaminant Level	California DHS Primary MCL
Toluene	150 µg/L	California Primary Maximum Contaminant Level	California DHS Primary MCL
Ethylbenzene	300 µg/L	California Primary Maximum Contaminant Level	California DHS Primary MCL
Xylenes	1,750 µg/L	California Primary Maximum Contaminant Level	California DHS Primary MCL
Naphthalene	170 µg/L	Narrative Objective for Toxicity	California DHS, Toxicity Action Level
MTBE	13 µg/L	California Primary Maximum Contaminant Level	California DHS Primary MCL
TEL	0.0007 µg/L	Narrative Objective for Toxicity	USEPA IRIS Reference Dose as a Drinking Water Level

~~-[The cited IRIS value for TEL is substantially below the detection limit of the LUFT Method, which is the established commercially available method for such analysis. If the IRIS-derived value were used, we might be considered above the WQO for TEL even if all sampling results showed no detection. It is therefore an inappropriate and unenforceable standard].~~

31. The constituents listed in Finding Nos. 11 and 30 are wastes as defined in California Water Code Section 13050(d).

32. The groundwater exceeds the WQOs for the constituents listed in Finding No. 30. The exceeding of applicable WQOs in the Basin Plan constitutes pollution as defined in California Water Code Section 13050(1)(1). The wastes detected in waters, soil and vapor at the site threatens to cause pollution, including contamination, and nuisance.

33. Section 13050(l)(1) of the CWC defines pollution as:

“an alteration of the quality of the waters of the state by waste to a degree which unreasonably affects either of the following: (A) The waters for beneficial uses. (B) Facilities which serve these beneficial uses.”

34. Section 13050(m) of the CWC defines “nuisance” as:

“anything which meets all of the following requirements: (1) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. (2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. (3) Occurs during, or as a result of, the treatment or disposal of wastes.”

35. Title 23 California Code of Regulations Sections 2729 and 2729.1, require submittal of analytical data electronically via the Internet, using approved electronically deliverable formats (EDF), to the State Water Board Geographic Environmental Information Management System database (GeoTracker).

DISCHARGER LIABILITY

36. As described in Finding 22, 31, and 32, the Discharger is subject to an order pursuant to Water Code Section 13304 because the Discharger has caused or permitted waste to be discharged or deposited where it has discharged to waters of the state and has created, and continues to threaten to create, a condition of pollution or nuisance. The condition of pollution is a priority violation and issuance or adoption of a cleanup or abatement order pursuant to Water Code Section 13304 is appropriate and consistent with policies of the Water Board.

37. This Order requires investigation and cleanup of the site in compliance with the Water Code, the applicable Basin Plan, Resolution 92-49, and other applicable plans, policies, and regulations.

38. As described in Finding 24, the Discharger is subject to an order pursuant to Water Code section 13267 to submit technical reports because existing data and information about the site indicate that waste has been discharged, is discharging, or is suspected of discharging, at the property, which is or was owned and/or operated by the Discharger named in this Order, Nicoletti Oil, Inc. and ExxonMobil Corporation, their agents, successors, and assigns. The technical reports required by this Order are necessary to assure compliance with Section 13304 of the California Water Code, including to adequately investigate and cleanup the site to protect the beneficial uses of waters of the state, to protect against nuisance, and to protect human health and the environment.

39. If the Discharger fails to comply with this Order, the Executive Officer may request the Attorney General to petition the superior court for the issuance of an injunction.

40. If the Discharger violates this Order, then the Discharger may be liable civilly in a monetary amount provided by the Water Code.

41. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), pursuant to Title 14 CCR Section 15321(a)(2). The implementation of this Order is also an action to assure the restoration of the environment and is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.), in accordance with Title 14 CCR, Sections 15308 and 15330.

42. Any person affected by this action of the Regional Board may petition the State Board to review the action in accordance with Title 23 CCR Sections 2050-2068. The regulations may be provided upon request and are available at www.swrcb.ca.gov. The State Board must receive the petition within 30 days of the date of this Order.

REQUIRED ACTIONS

IT IS HEREBY ORDERED that Cleanup and Abatement Order No. R5-2005-0701 is rescinded and that, pursuant to CWC Sections 13267 and 13304 and Resolution 92-49 *Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*, and with the Regional Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins* (in particular the Policies and Plans listed within the Control Action Considerations portion of Chapter IV), Nicoletti Oil, Inc. and ExxonMobil Corporation, their agents, successors, and assigns, shall clean up the waste and abate forthwith the existing and threatened effects of waste discharged to groundwater from the facility at 2801 Blossom Street, Dos Palos, California. "Forthwith" means as soon as reasonably possible, but in any event no later than the compliance dates below. More specifically, the Discharger shall:

REMEDIATION

1. Continue operation of the GWP&T and SVE remediation systems in accordance with the RAP, including monitoring and reporting in accordance with the attached Monitoring and Reporting Program, which is hereby incorporated by reference into this Cleanup and Abatement Order, and as specified below.
2. Maintain, operate, and modify the remediation systems to capture, cleanup the pollutants, and prevent the further migration of pollutants from the Site, and to provide continuous capture of vapors from the contaminant plume.
3. Continue operation of the remediation system until the Regional Board approves, in writing,

the cessation of operation.

GROUNDWATER MONITORING

4. Submit quarterly groundwater monitoring reports, including remediation system operation and monitoring (O&M) reports, in accordance with attached Monitoring and Reporting Program (MRP) No. R5-2006-XXXX **by the 15th day of the second month following the end of each calendar quarter**, with the next report (covering O&M from startup through the end of June 2006) due **15 August 2006**.

5. Electronic copies of all reports and analytical results are to be submitted over the Internet to the State Water Board Geographic Environmental Information Management System database (GeoTracker) at <http://geotracker.swrcb.ca.gov>. Electronic submittals shall comply with GeoTracker standards and procedures as specified on the State Board's web site.

HUMAN HEALTH RISK/PUBLIC PARTICIPATION

6. Continue to renew, on an annual basis, existing advisory against the consumption of homegrown produce by residents. The advisory shall be included with a fact sheet provided to nearby residents, businesses and property owners that describes the operations and progress of the remedial activities at the site. The requirement for the advisory shall remain in effect until alternative recommendations submitted by the Discharger are implemented following concurrence by the Water Board.

GENERAL REQUIREMENTS

7. Conduct work only after Water Board staff concurs with work plans.

8. Submit all reports with a cover letter signed by the Discharger.

9. Fourteen days prior to conducting any new or non-routine fieldwork, not already covered by or subject to an existing Health and Safety Plan for the Site, submit a Health and Safety Plan that is adequate to ensure worker and public safety during the field activities in accordance with CCR Title 8, Section 5192.

[Without some context for what is meant by "fieldwork," this requirement appears to contradict other time frames and requirements regarding notice and work at the site. If the language we have provided does not reflect the intent of this provision, please define or clarify the term "fieldwork"]

10. As required by the California Business and Professions Code Sections 6735, 7835, and

7835.1, have appropriate reports prepared by, or under the supervision of, a registered professional engineer or geologist and signed by the registered professional. All technical reports submitted by the Discharger shall include a statement signed by the authorized representative certifying under penalty of law that the representative has examined and is familiar with the report and that to his knowledge, the report is true, complete, and accurate.

11. Upon startup of any remediation system(s), operate the remediation system(s) continuously, except for periodic and required maintenance or unpreventable equipment failure. The Discharger shall notify the Water Board (by e-mail or telephone) within 24-48 hours of any unscheduled shutdown of the remediation system(s) that lasts longer than 48-96 hours. This notification shall include the cause of the shutdown and the corrective action taken (or proposed to be taken) to restart the system. Any interruptions in the operation of the remediation system(s), other than for maintenance, emergencies, or equipment failure, without prior approval from Water Board staff or without notifying the Water Board within the specified time is a violation of this Order.

[We have modified the initial notification time period to be consistent with the MRP. Also, given the relatively remote location of the site, the possibility of a weekend breakdown, and the mobilization time required to recognize a problem, get a crew to the site to investigate and communicate the problem, the specified 48 breakdown period is too tight. As a practical matter, a 96 hour window would be a more reasonable time period and is more in line with the MRP document. The notice provisions in the two documents need to be consistent in order to avoid confusion].

12. Optimize remedial systems as needed to improve system efficiency, operating time, and/or pollutant removal rates, and report on the effectiveness of the optimization in the Annual Report.

13. Notify Regional Board staff at least three working days prior to any onsite work, testing, or sampling that pertains to environmental remediation and investigation and is not routine monitoring, maintenance, or inspection.

14. Obtain all local and state permits and access agreements necessary to fulfill the requirements of this Order prior to beginning the work.

15. Continue any remediation or monitoring activities until such time as the Executive Officer determines that sufficient cleanup has been accomplished to fully comply with this Order and this Order has been rescinded.

16. Any person affected by this action of the Water Board may petition the State Water Board to review the action in accordance with Title 23, CCR Sections 2050-2068. Copies of the applicable regulations will be provided on request and are available on the Internet at: http://www.waterboards.ca.gov/water_laws/index.html . The State Water Board must receive the petition within 30 days of the date of this Order.

17. Failure to comply with the provisions of this order may result in further enforcement action including, but not limited to, the imposition of Administrative Civil Liability pursuant to CWC Sections 13268 and/or 13350.

18. Continue to reimburse the Water Board for reasonable costs associated with oversight of the cleanup of this facility.

19. Based on the findings of the reports submitted as directed by this Order, conduct activities and submit monitoring and technical reports, as subsequently directed by the Executive Officer pursuant to California Water Code Sections 13304 and 13267, to expedite cleanup and closure of the Site.

20. In the event compliance cannot be achieved within the terms of this Order, the Discharger has the opportunity to request, in writing, an extension of the time specified. The extension request shall include an explanation why the specified date could not or will not be met and justification for the requested period of extension. Any extension request shall be submitted as soon as the situation is recognized and no later than the compliance date. Extension requests not approved in writing with reference to this order are denied.

21. Reference herein to determinations and considerations to be made by the Water Board regarding the terms of the Order shall be made by the Executive Officer. Decisions and directives made by the Executive Officer in regards to this Order shall be as if made by the Water Board.

22. If, in the opinion of the Executive Officer, the Discharger fails to comply with this Order, the Executive Officer may pursue further enforcement, including making a referral to the Attorney General for judicial enforcement or issuing a complaint for administrative civil liability. The Water Board reserves its right to take any enforcement actions authorized by law.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region on ____ 2006.

PAMELA C. CREEDON, Executive Officer

(Date)

Comments of ExxonMobil 5/24/06

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2006-XXXX
CALIFORNIA WATER CODE SECTION 13267

FOR

NICOLETTI OIL, INC.
AND
EXXONMOBIL CORPORATION
NICOLETTI OIL DISTRIBUTION FACILITY
MERCED COUNTY

Nicoletti Oil, Inc. and ExxonMobil Corporation (hereafter jointly referred to as the Discharger) currently and/or previously owned and operated a bulk fuel and retail fuel distribution facility at 2801 Blossom Street in Dos Palos (the facility). The facility consists of five aboveground fuel storage tanks, fuel dispensers, associated aboveground and underground piping, an office building and warehouse, and car wash. Petroleum hydrocarbon releases from the fuel storage system have resulted in pollution of soil and groundwater beneath the facility, Blossom Street, and property along the north side of Blossom Street. Although This pollution impaired the beneficial use of this water resourcee groundwater in this area is not currently used as municipal ~~orand~~ domestic water supply, the subject pollution has impaired or threatens to impair the potential beneficial uses of this water resource. Depth to groundwater is approximately 5 feet below ground surface. The Discharger operates a soil vapor extraction system to remove pollutants from the vadose zone and a groundwater extraction and treatment system to remediate polluted groundwater and separate phase hydrocarbons (SPH) floating on the water table.

This Monitoring and Reporting Program (MRP) is issued pursuant to Section 13267 of the California Water Code and is necessary to delineate groundwater pollutant plumes and determine whether remediation efforts are effective. Existing data and information about the site show the presence of various chemicals, including Total Petroleum Hydrocarbons as gasoline and diesel (TPHg and TPHd); benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tertiary butyl ether (MTBE); and tetraethyl lead emanating from the property and resulting from the Discharger's current or past operation. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

Prior to construction of any new groundwater monitoring or extraction wells, and prior to destruction of any groundwater monitoring or extraction wells, the Discharger shall submit plans and specifications to the Board for review and approval. Once installed, all new wells shall be added to the monitoring program and shall be sampled and analyzed according to the schedule below.

REMEDIATION SYSTEM MONITORING

Groundwater Pump and Treat System Monitoring

Influent samples shall be collected from two locations, one sample upstream of the stripper and a second sample downstream of the stripper and upstream of the first carbon vessel. System effluent samples

shall be collected from the exiting sample port of the final treatment vessel prior to discharge. Influent and effluent samples shall be analyzed according to the following schedule:

[This chart did not translate well from PDF to Word -- please ignore formatting glitches]

Type of Sampling Reporting
 Constituent Units Sample Frequency ~~Frequency~~

RTotal Petroleum Hydrocarbons as Gasoline¹ µg/L Grab Monthly Quarterly

Total Petroleum Hydrocarbons as Diesel¹ µg/L Grab Monthly Quarterly

Volatile Organic Compounds² µg/L Grab Monthly Quarterly

Electrical Conductivity µmhos/cm Grab Monthly Quarterly

Total Dissolved Solids mg/l Grab Monthly Quarterly

pH (Field) pH units Grab Monthly Quarterly

Temperature (Field) °Celsius Grab Monthly Quarterly

Total Volume of Water Treated Gallons Continuous Monthly Quarterly

Flow Rate at Time of Sampling gpm Grab Monthly Quarterly

Average Flow Rate (since last sampling) gpm Continuous Monthly Quarterly

¹ Required analytical method shall be USEPA Method 8015M or 8260B.

² Required analytical method shall be either USEPA Method 8260B or 624. Analysis shall include benzene, toluene, ethylbenzene, and xylene (BTEX) and seven fuel oxygenates (di-isopropyl ether [DIPE], ethanol, ethyl tertiary butyl ether [ETBE], methanol, methyl tertiary butyl ether [MTBE], tertiary amyl methyl ether [TAME], and tertiary butyl alcohol [TBA]). The maximum detection limits must meet those specified in the Groundwater Monitoring section of the MRP.

Soil Vapor Extraction System Monitoring

A soil vapor extraction system (SVE) is being operated to remediate petroleum hydrocarbon vapors emanating from polluted soil and groundwater. Soil vapor is being extracted from 19 wells and treated via thermal destruction. Performance monitoring of the SVE system shall comply with the requirements of the SJVAPCD and include the parameters listed below. Chemical testing shall be performed on both influent and effluent vapor streams.

[The following chart did not translate well from PDF to Word -- Please ignore formatting glitches]

Type of Sampling Reporting
 Constituent Units Sample Frequency Frequency

Total Organic Vapors (using PID or FID) ppm Grab Bi-weekly Quarterly

Total Petroleum Hydrocarbons as Gasoline µg/L Grab Bi-weekly Quarterly

DTotal Petroleum Hydrocarbons as Diesel¹ µg/L Grab Bi-weekly Quarterly

BTEX² µg/L Grab Bi-weekly Quarterly

Temperature (Field) °Celsius Grab Bi-weekly Quarterly

System Vacuum (Field) inches H₂O Grab Bi-weekly Quarterly

Flow Rate at Time of Sampling scfm Grab Bi-weekly Quarterly
Average Flow Rate (since last sampling) scfm Continuous Bi-weekly Quarterly

¹ Required analytical method shall be USEPA Method TO-3.

² Required analytical method shall be USEPA Method TO-15. Analysis shall include benzene, toluene, ethylbenzene, and xylene (BTEX). The maximum detection limits must meet those specified under USEPA Method TO-15.

For monitoring of SVE system operation, the Discharger shall perform the following:

- a. For each regularly scheduled O&M inspection of the system, monitor individual SVE well vapor flow rates (measured or estimated – as available) and vacuum measurements from monitoring wells and vapor wells not connected to the SVE system or paired with an SVE system well.
- b. Laboratory analytical reports indicating the concentration of petroleum hydrocarbon constituents in the gasoline range, naphthalene, and benzene in total SVE effluent.
- c. An estimate of the mass of total petroleum hydrocarbons removed from the ground during the quarter and cumulatively by the SVE system.

Soil Vapor Probe Monitoring

For all Site residential areas not within the influence of the SVE system (influence as determined by the presence of a measurable or predictable soil vacuum due to SVE system operation), implement a soil vapor monitoring program to assess whether volatile organic hydrocarbon concentrations in soil exceed acceptable concentrations. Until modification or termination of soil vapor monitoring is approved in accordance with the terms of this MRP, the minimum scope of the soil vapor monitoring shall consist of quarterly sampling of the existing 3-foot soil vapor probes (NW-#-3) for which vacuum influence from the SVE system cannot be demonstrated. Samples shall be analyzed for benzene by USEPA Method TO-15 and for tetraethyl lead (TEL) by the modified NIOSH Method (2533 MOD) previously utilized for all such testing at the site, and tetraethyl lead (TEL) in the same manner as referenced above for SVE system monitoring. Soil vapor probe monitoring reports shall be submitted along with groundwater monitoring reports.

In the event that an exceedance of the acceptable concentration of benzene or TEL is confirmed by subsequent sampling in a soil vapor probe in a given area, then a technical report shall be submitted containing a workplan which proposes a response, which may include modification or expansion of the remedial system. If the initial detection of benzene or TEL in a soil vapor sample exceeds ten times the acceptable concentration, then the confirmation sampling and analyses shall be completed within one month of the initial sampling and analysis and the results transmitted to the Regional Water Board forthwith. Upon Regional Water Board concurrence with the workplan, the approved workplan, including any the remediation system modifications, shall be implemented completed forthwith.

In the event that vapor monitoring results for all measured constituents are at or below acceptable concentrations for [8? 12?] consecutive quarters, then soil vapor monitoring shall be terminated.

GROUNDWATER MONITORING

As shown on Figure 1, there are 50 groundwater monitoring wells (tabulated below) and 32 vapor monitoring wells at the site. The groundwater monitoring program for monitoring wells not connected to the remediation system and any wells installed subsequent to the issuance of this MRP shall follow the test schedule below. Monitoring wells with SPH or visible sheen shall be monitored, at a minimum, for SPH thickness and depth to water. The volume of extracted groundwater and separate phase hydrocarbons also shall be provided in quarterly monitoring reports. The wells listed in the table below shall be monitored and sampled on a quarterly basis, if they are not connected to the groundwater remediation system. Sample collection and analysis shall follow standard EPA protocol.

Wells	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	MW-9
	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15	MW-16	MW-A	MW-B
	MW-C	MW-D	MW-E	MW-F	MW-G	MW-H	MW-J	MW-K	MW-L
	MW-M	MW-N	MW-O	MW-P	MW-Q	MW-R	MW-S	MW-T	MW-U
	MW-V	MW-W	MW-X	MW-Y	MW-Z	NW-1-GW		NW-2-GW	
	NW-3-GW		NW-4-GW		NW-5-GW		NW-6-GW		
	NW-7-GW		NW-8-GW		NW-9-GW				

[This following chart did not translate well from PDF to Word format, so we could not mark up the chart effectively. However we propose the following changes: **With respect to Organic Lead, the standard commercially available Method is the DHS LUFT Method, the POL for which is 0.3 mg/L. We have not analyzed for Methanol in the past, and question the need for it. However, to the extent that it is to be added, the standard analysis is by EPA Method 8015, with a detection limit of 0.1 mg/L. Also, does the listing of "Total Petroleum Hydrocarbons" as a constituent mean the total carbon chain analysis?]**

Constituents	EPA Analytical Method	Maximum Practical Quantitation Limit (µg/l) ¹	Sampling Frequency
Depth to Groundwater	---	---	Quarterly
SPH Layer Thickness	---	---	Quarterly
Volatile Organic	8260B	0.5	Quarterly
<u>Compounds</u> <u>compounds</u>	8015M	50	Quarterly
Total Petroleum	8020 or 8260B	0.5	Quarterly
Hydrocarbons	8020 or 8260B	0.5	Quarterly
Benzene	8020 or 8260B	0.5	Quarterly
Toluene	8020 or 8260B	0.5	Quarterly
Ethylbenzene	<u>[DHS LUFT]</u> --- ²	0.25	Quarterly
Xylene	8260B	0.5	Quarterly
Organic Lead ²	8260B	5.0	Quarterly
MTBE	8260B	0.5	Quarterly
TBA	8260B	0.5	Quarterly
TAME	8260B	0.5	Quarterly
DIPE	8260B	50	Quarterly
ETBE	8260B	100	Quarterly
Ethanol			
Methanol			

¹ For nondetectable results, all concentrations between the Method Detection Limit and the Practical Quantitation Limit shall be reported as trace.

² ~~The Discharger shall analyze groundwater samples using a test method with the lowest commercially available practical quantitation limit.~~ If organic lead is detected, the Discharger shall perform verification sampling within 30 days of submittal of the monitoring report.

REPORTING

When reporting the data, the Discharger shall arrange the information in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner as to illustrate clearly the compliance with this Order.

The Discharger shall notify Regional Water Board staff via e-mail or ~~telephone-facsimile~~ within 48 hours following (or, if planned, in advance of) any interruption of remediation system operation (either the groundwater pump & treat or SVE components, or both) of more than ~~48-96~~ hours or of aggregate interruptions of operation totaling more than 72 hours within any 2-week period. ~~Within 96 hours of the initial notification, Discharger shall submit a written report (by e-mail or facsimile)~~ Such notification shall describe the reason for non-operation, ~~describing the~~ steps being taken to return to operational mode, and ~~estimate~~ the time of resumption of operation. In such instances, all necessary efforts shall be made to return the remediation system to full operation forthwith and any additional delays in restoring the remediation system to full operation shall be similarly reported with explanation.

[Please see our comment to paragraph 11 of the CAO, regarding response times, etc. We have attempted to harmonize the notice requirements in the two documents in order to avoid confusion].

As required by the California Business and Professions Code Sections 6735, 7835, and 7835.1, all reports shall be prepared by a registered professional or their subordinate and signed by the registered professional.

Quarterly groundwater monitoring reports, including remediation system operations and maintenance and soil vapor probe monitoring data, shall be submitted to the Board by the **1st day of the second month following the end of each calendar quarter (i.e., by 1 February, 1 May, 1 August, and 1 November)** until such time as the Executive Officer determines that the reports are no longer necessary. Each quarterly report shall include the following minimum information:

- (a) a description and discussion of the groundwater sampling event and results, including trends in the concentrations of pollutants and groundwater elevations in the wells, how and when samples were collected, and whether the pollutant plume(s) is delineated;
- (b) field logs that contain, at a minimum, water quality parameters measured before, during, and after purging, method of purging, depth of water, volume of water purged, etc.;
- (c) groundwater elevation contour maps for all groundwater zones, if applicable;

- (d) isocontour pollutant concentration maps for all groundwater zones, if applicable;
- (e) a table showing well construction details such as well number, groundwater zone being monitored, coordinates (longitude and latitude), ground surface elevation, reference elevation, elevation of screen, elevation of bentonite, elevation of filter pack, and elevation of well bottom;
- (f) a table showing historical lateral and vertical (if applicable) flow directions and gradients;
- (g) cumulative data tables containing the water quality analytical results, depth to groundwater, and a summary of SPH layer thickness data;
- (h) a copy of the laboratory analytical data report;
- (i) if applicable, the status of any ongoing remediation, including:
 - 1) documentation that each well pump is performing extraction functions as designed;
 - 2) quarterly and cumulative information on the mass of pollutant removed from the subsurface by both systems;
 - 3) system operating times;
 - 4) a description of steps being taken to maximize the mass extraction rate of petroleum hydrocarbons;
 - 5) the effectiveness of the remediation system; and
 - 6) any field notes pertaining to the operation and maintenance of the system.
- (j) if applicable, the reasons for and duration of all interruptions in the operation of any remediation system, and actions planned or taken to correct and prevent interruptions; and
- (k) copies of any correspondence with other regulatory agencies during the quarter pertaining to remediation system operation.

An Annual Report shall be submitted to the Regional Water Board by **1 February** of each year. This report shall contain an evaluation of the effectiveness and progress of the investigation and remediation, and may be substituted for the fourth quarter monitoring report. The Annual Report shall contain the following minimum information:

- (a) both tabular and graphical summaries of all data obtained during the year;
- (b) groundwater contour maps and pollutant concentration maps containing all data obtained during

the previous year;

(c) a discussion of the long-term trends in the concentrations of the pollutants in the groundwater monitoring wells;

(d) an analysis of whether the pollutant plume is being captured by an extraction system or is continuing to spread;

(e) a description of all remedial activities conducted during the year, an analysis of their effectiveness in removing the pollutants, and plans to improve remediation system effectiveness;

(f) the anticipated date for completion of cleanup activities;

(g) an identification of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program;

(h) if desired, a proposal and rationale for any revisions to the groundwater sampling plan frequency and/or list of analytes.

The results of any monitoring done more frequently than required at the locations specified in the MRP also shall be reported to the Regional Water Board. The Discharger shall implement the above monitoring program as of the date of the Order.

FUEL SYSTEM SURVEY

Within 90 days of the issuance of this Order, Dischargers shall complete a comprehensive Fuel System Survey of existing operations at the Nicoletti Oil facility, to identify, address and/or prevent any current or future release of petroleum hydrocarbons as a result of ongoing operations at the Site. The Fuel System Survey shall be conducted by a registered engineering professional(s), pursuant to a scope of work approved by the Regional Water Board. The scope of work shall include a full on-site inspection of the fuel storage and fuel dispensing areas of the Site, the interior and exterior of the fuel dispensing equipment, including all environmental safety mechanisms, all release prevention or containment equipment, and all accessible fuel lines and pumps associated with current fuel dispensing operations at the Site. The findings, conclusions and recommendations of the surveying professional shall be summarized in a written report, and submitted to the Regional Water Board within 30 days of completion of the Survey. Any recommendations approved and adopted by the Regional Water Board, shall be implemented forthwith.

This Survey shall be in addition to any existing tank integrity testing requirements, and shall be conducted on an annual basis, from the date of the first survey report, until operation of the remediation system is permanently shut down, or until the requirement is otherwise modified or terminated in writing by the Regional Water Board.

[ExxonMobil believes that it is imperative that such a survey be conducted at the Nicoletti facility to ensure that current operations do not undermine remedial efforts at the Site. To date, Nicoletti has refused to conduct such a survey voluntarily. It should therefore be made a part of this Order, so that Nicoletti will have to either comply (or allow ExxonMobil, as fellow Discharger, to conduct the survey).

or face enforcement for failure to comply]

Ordered by:

LA C. CREEDON, Executive Officer

PAME

(Date)



Linda Adams
Secretary

California Regional Water Quality Control Board Central Valley Region

Robert Schneider, Chair

Sacramento Main Office

11020 Sun Center Drive #200, Rancho Cordova, California 95670-6114
Phone (916) 464-3291 • FAX (916) 464-4645
<http://www.waterboards.ca.gov/centralvalley>



Arnold
Schwarzenegger
Governor

30 May 2006

Ms. Karen A. Caffee, Esq.
Bingham McCutchen, LLP
335 South Grand Avenue, Suite 4400
Los Angeles, CA 90071

RESPONSE TO COMMENTS ON PROPOSED CLEANUP AND ABATEMENT ORDER, NICOLETTI OIL FACILITY, 2801 BLOSSOM AVENUE, MERCED COUNTY

Staff of the Central Valley Regional Water Quality Control Board (Water Board) has reviewed comments submitted by Bingham McCutchen, LLP on behalf of ExxonMobil Corporation (ExxonMobil) on 24 May 2006 for the proposed Cleanup and Abatement Order (CAO) and associated Monitoring and Reporting Program (MRP) regarding the Nicoletti Oil facility located at 2801 Blossom Avenue, Dos Palos, Merced County. ExxonMobil's comments were provided via electronic mail in the form of suggested text revisions in redline-strikeout to the CAO and MRP, with associated explanatory comments in parenthesis.

ExxonMobil's comments that were provided in parentheses are italicized below followed by a brief summary of the comment to provide clarity or context, and Water Board staff's response to the comment. Suggested text revisions were incorporated into the proposed CAO, where appropriate, on a case-by-case basis. A revised copy of the proposed CAO with modifications in red is enclosed.

The Historical Extent map in Attachment B provides no time frame or concentration criteria as a frame of reference for the depicted Site conditions, and is therefore misleading. In particular, the contaminant contour for TPHd appears to include wells in which only background TPHd concentrations have been measured. Extent lines should be based on available data indicating contamination from the Site source. A 360 degree dashed line (unknown) for TPHd, is not a meaningful contour.

Summary: ExxonMobil contends that the map depicting the historical extent of groundwater contaminants does not provide a time frame or concentration criteria as a frame of reference and the TPHd contour includes some wells in which only background TPHd concentrations have been detected. **Response:** The map has been annotated to state that the contours represent an interpretation of the possible extent of groundwater contamination for the purposes of the proposed CAO and that the map is representative of site risks or potential exposures at the Site.

The cited TPHd and TPHg numbers were actually sampled in SPH wells, connected to the remedial system, and are not representative of dissolved-phase concentrations in groundwater. An amended Quarterly Report is being prepared to correct and clarify the record on this point. Concentrations from quarterly sampling during the first half of 2005, before the disruptions of construction and/or operation of the remediation system began, provide a more accurate picture of dissolved phase concentrations at the site, and for consistency should be used for all cited constituents.

Summary: ExxonMobil contends that groundwater TPHd and TPHg data tabulated in the proposed CAO do not accurately represent dissolved phase concentrations as the wells contained SPH at the time of sampling. **Response:** Groundwater in wells that contain SPH is typically not sampled. These wells were not listed as containing SPH in the first quarter 2006 groundwater monitoring report. Because ExxonMobil will be submitting an amended quarterly report to clarify that the groundwater TPHd and TPHg data, the CAO has been modified to include a footnote in the table to explain that the listed concentrations may have contained SPH.

In addition, we note that TEL has not been detected in groundwater (only in SPH), and should not be included in this chart -- even with a footnote.

Summary: ExxonMobil contends that TEL has not been detected in groundwater and therefore the groundwater table should not include TEL data, even with a footnote that states TEL was reported in samples of SPH. **Response:** The proposed CAO has been modified to remove the reference to TEL in the data table and have added a separate paragraph to the proposed CAO containing the data and explaining the sample was from SPH. A reference to this data is needed as it establishes a potential source of TEL for detections reported in soil vapor, and residential indoor air and crawlspace samples.

Finally, the chart appears to cite "recently measured" numbers that are actually maximum concentrations detected, which are not necessarily representative generally. If you are going to use maximum concentrations, this should at least be made explicit in the heading or notes to the chart.

Summary: ExxonMobil contends that the groundwater contaminant concentration table in the proposed CAO provides data that are actually maximum values that are not necessarily representative and recommends that the table be modified to indicate that these are maximum values. **Response:** Even though the data were recent (from the last quarterly report), the "Concentration" column heading in the table has been modified to indicate that the data represent maximum reported concentrations.

The following chart is not representative of the data set for the event it purports to report. If it is to be included it should be made clear that the data was inconclusive, failed to establish a complete vapor diffusion pathway, and has never been reproduced in subsequent sampling rounds.

Summary: ExxonMobil contends that the tabulation of residential indoor air and crawlspace sample data is not representative of the data set for the event it purports to report, the data was inconclusive, failed to establish a complete vapor diffusion pathway, and have never been reproduced in subsequent sampling rounds. **Response:** The proposed CAO has been modified to include a statement that later indoor air sampling events did not contain detectable levels of TEL. Sample collection methodology and various environmental variables such as barometric pressure and soil moisture content could account for the variation in concentration between sampling events. The intent of citing these data is to provide all data that exceeds relevant screening criteria whether the data were subsequently reproduced or not.

The CHHSL is not a promulgated standard, but is a theoretically calculated screening tool, and in many cases is actually below the laboratory detection limits of the analytes for which it is cited. The only enforceable human health exposure limit for TEL is a Federal OSHA permissible exposure limit for exposure in the occupational setting, which is 75.0 ug/m³. This permissible limit is 40 times greater than the highest detected concentration at the site, and over 205,000 times greater than the cited CHHSL value for TEL.

Summary: ExxonMobil contends that the CHHSL is not a promulgated standard, but is a theoretically calculated screening tool, and in many cases less than the laboratory detection limits of the analytes for which it is cited. Further, ExxonMobil contends that the only enforceable human health exposure limit for TEL is a Federal OSHA permissible exposure limit for an occupational setting which is 75 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). **Response:** The proposed CAO has been modified to add footnotes where appropriate noting that the CHHSL for TEL is not a promulgated standard but is a theoretically calculated screening tool and is below the laboratory detection limit. The proposed CAO has been modified to include a reference to the Federal OSHA permissible exposure limit for adult occupational exposure in a 8-hour workday, however this standard does not apply to conditions in the Site vicinity as there are children present that could be potentially exposed on a 24-hour basis.

*TEL has not been detected in groundwater (only in SPH). Also, TEL is **not** a recognized carcinogen according to EPA, NTP, IARC or ACGIH.*

Summary: ExxonMobil contends that TEL has not been detected in groundwater at the Site and that TEL is not a recognized carcinogen according to the U.S. Environmental Protection Agency (EPA), National Toxicology Program (NTP), International Agency for Research on Cancer (IARC), or American Conference of Governmental Industrial Hygienists (ACGIH). **Response:** The proposed CAO states that benzene and TEL are known human carcinogens and does not state that TEL was detected in groundwater at the Site. The proposed CAO has been modified to reflect that TEL, an inorganic form of lead, is recognized by the IARC as a probable human carcinogen.

The cited IRIS value for TEL is substantially below the detection limit of the LUFT Method, which is the established commercially available method for such analysis. If the IRIS-derived value were used, we might be considered above the WQO for TEL even if all sampling results showed no detection. It is therefore an inappropriate and unenforceable standard.

Summary: ExxonMobil contends that the cited Integrated Risk Information System (IRIS) value for TEL of 0.0007 micrograms per liter ($\mu\text{g/L}$) is substantially below the detection limit of 300 $\mu\text{g/L}$ for the Leaking Underground Fuel Tank (LUFT) Method, the established commercially available method for such analysis. **Response:** Water Board staff agrees that TEL in groundwater could still be considered to exceed the IRIS-derived value if analyzed using the LUFT Method. The proposed Monitoring and Reporting Program (MRP) that is a part of the proposed CAO requires that the Discharger choose an analytical method for TEL that provides the lowest commercially available detection limit as a best science approach to evaluate the presence of TEL. Because this detection limit will likely be greater than the Integrated Risk Information System (IRIS) value, the table in Finding 30 of the proposed CAO has been footnoted to indicate that the practical quantitation limit (PQL) for TEL will be recognized as the default Water Quality Objective (WQO).

Without some context for what is meant by “fieldwork,” this requirement appears to contradict other time frames and requirements regarding notice and work at the site. If the language we have provided does not reflect the intent of this provision, please define or clarify the term “fieldwork”.

Summary: ExxonMobil requests clarification of the definition of “fieldwork” if the recommended language regarding preparation and submittal of a Health and Safety Plan for planned fieldwork disagrees with the intention of the provision. **Response:** Water Board staff agrees with the recommended text revision and has incorporated it into the proposed CAO.

We have modified the initial notification time period to be consistent with the MRP. Also, given the relatively remote location of the site, the possibility of a weekend breakdown, and the mobilization time required to recognize a problem, get a crew to the site to investigate and communicate the problem, the specified 48 [-hour] breakdown period is too tight. As a practical matter, a 96[-]hour window would be a more reasonable time period and is more in line with the MRP document. The notice provisions in the two documents need to be consistent in order to avoid confusion.

Summary: ExxonMobil contends that the initial notification period of 48 hours for any unscheduled remediation system shutdown within 24 hours of its discovery is difficult to meet given the remote location of the Site, possibility of a weekend breakdown, and time required to mobilize a crew, evaluate the problem and provide a report to the Water Board. ExxonMobil recommends increasing the notification period from 48 hours to 96 hours within 48 hours of system shutdown discovery. **Response:** Water Board staff believes that the 96-hour notification period is acceptable provided that the notification will be made in writing by e-mail or facsimile and will include a description of the reason for non-operation, steps being taken to return to operational mode, and an estimate of the time to resume operation. The proposed CAO and MRP have been modified in accordance with these recommendations.

*This following chart did not translate well from PDF to Word format, so we could not mark up the chart effectively. However we propose the following changes: **With respect to Organic Lead, the standard commercially available Method is the DHS LUFT Method, the PQL for***

which is 0.3 mg/l. We have not analyzed for Methanol in the past, and question the need for it. However, to the extent that it is to be added, the standard analysis is by EPA Method 8015, with a detection limit of 0.1 mg/l., Also, does the listing of "Total Petroleum Hydrocarbons" as a constituent mean the total carbon chain analysis?

Summary: ExxonMobil contends that the standard commercially available PQL for organic lead in water is 0.3 milligrams per liter (mg/L) using the DHS LUFT Method. In addition, ExxonMobil questioned the need for methanol analysis of groundwater samples given that methanol has historically not been tested for and requested clarification of the carbon range for Total Petroleum Hydrocarbons analysis. **Response:** With respect to analysis of TEL in water, the lowest commercially available method will be required as stated in the proposed MRP. This should provide a substantially lower PQL than the DHS LUFT Method and will provide better data for comparison to the existing WQO for TEL. EPA Method 8260B is typically used for analysis of methanol during analysis for VOCs and fuel oxygenates in water. EPA Method 8015M can be substituted if it provides the same PQL as EPA Method 8260B. Analysis of Total Petroleum Hydrocarbons shall be performed for gasoline and diesel range organics.

ExxonMobil believes that it is imperative that such a [fuel system] survey be conducted at the Nicoletti facility to ensure that current operations do not undermine remedial efforts at the Site. To date, Nicoletti has refused to conduct such a survey voluntarily. It should therefore be made a part of this Order, so that Nicoletti will have to either comply (or allow ExxonMobil, as fellow Discharger, to conduct the survey), or face enforcement for failure to comply.

Summary: ExxonMobil contends that the proposed MRP should include a requirement for the Discharger to complete a comprehensive survey of the facility fuel system integrity.

Response: The proposed CAO is intended to effectuate continued operation and maintenance of the site remediation system. However, as a precautionary measure for potential ongoing petroleum hydrocarbon releases, the Water Board will consider such a requirement as a matter separate from the proposed CAO and MRP.

If you have any questions or comments regarding this letter, you may contact the undersigned at (916) 464-4719 or mclardy@waterboards.ca.gov or Duncan Austin at (916) 464-4712 or daustin@waterboards.ca.gov.

ORIGINAL SIGNED BY

Mark W. Clardy, P.G.
Engineering Geologist
Private Sites Cleanup Unit

Enclosure

cc: Mr. Steve Pao, ExxonMobil Corporation, Westlake Village
Mr. John Nicoletti, Nicoletti Oil Company, Dos Palos
Mr. Jeff Hensel, Kleinfelder, Inc., Redlands
Mr. Eric Chaudron, Law Offices of Canelo, Wilson, Wallace & Padron, LLP, Merced
Beth Jines, State Water Resources Control Board, Sacramento

David Boyers, Regional Water Quality Control Board, Rancho Cordova
Frances McChesney, Regional Water Quality Control Board, Rancho Cordova
Eric Swenson, Merced County Department of Public Health, Merced